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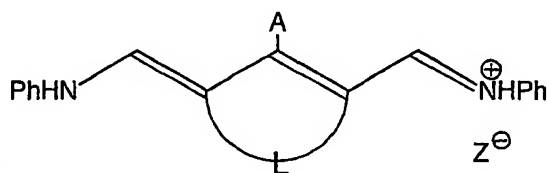
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(54) Title: PROCESS FOR THE PRODUCTION OF MESO-SUBSTITUTED CYANINE DYES



(III)

(57) Abstract: A single-step process for the production of meso-substituted cyanine dyes is provided comprising the reaction of a dye (III), with (a) a methylene compound (IV) or (V) or a quaternary salt (VI) or (VII) and (b) a compound selected from functionalized (hetero)aromatic compounds Ar-B, saturated cyclic amines (IV) and heteroaromatic compounds (V).

WO 2004/052995 A1

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13727

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C09B23/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 223 196 A (FUJI PHOTO FILM CO LTD) 17 July 2002 (2002-07-17) cited in the application page 38, line 14 - line 33; claims ---	1-14
A	EP 1 188 797 A (YAMAMOTO CHEMICALS INC) 20 March 2002 (2002-03-20) cited in the application page 25, line 45 -page 27, line 4 --- -/--	1-14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>STREKOWSKI L ET AL: "SUBSTITUTION REACTIONS OF A NUCLEOFUGAL GROUP IN HEPTAMETHINE CYANINE DYES. SYNTHESIS OF AN ISOTHIOCYANATO DERIVATIVES FOR LABELING OF PROTEINS WITH A NEAR-INFRARED CHROMOPHORE" JOURNAL OF ORGANIC CHEMISTRY, AMERICAN CHEMICAL SOCIETY. EASTON, US, vol. 57, no. 17, 14 August 1992 (1992-08-14), pages 4578-4580, XP000654165 ISSN: 0022-3263 page 4579, left-hand column, paragraph 3 -right-hand column, paragraph 3</p> <p>-----</p>	1-14

## INTERNATIONAL SEARCH REPORT

Information on patent family members

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EP 1223196	A	17-07-2002	JP 2002278057 A	27-09-2002
			EP 1223196 A2	17-07-2002
			US 2003022094 A1	30-01-2003
EP 1188797	A	20-03-2002	EP 1188797 A2	20-03-2002
			JP 2002187879 A	05-07-2002
			US 2002051939 A1	02-05-2002